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#### REMARKS

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks. By virtue of the foregoing amendments, Claims 26, 32, and 37 have been cancelled without prejudice or disclaimer of the subject matter contained therein. In addition, Claims 1-3, 5, 18, 24, 25, 27, 30, 38, 39, and 40 have been amended and Claims 41 and 42 have been added. Accordingly, Claims 1-3, 5, 9-11, 18, 19, 24, 25, 27, 30, 31, 33-36, and 38-42 are pending for examination in the present application.

No new matter has been presented by way of the claim amendments or additions and such amendments and additions are deemed unobjectionable. Entry thereof is respectfully requested.

## Information Disclosure Statement

The Examiner's consideration of the information contained in the Information Disclosure Statement filed on October 31, 2003 is noted with appreciation.

#### <u>Drawings</u>

The indication that the drawings filed on October 31, 2003 have been accepted is also noted with appreciation.

## Claim Rejection Under 35 U.S.C. \$103

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in MPEP § 706.02(j):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally

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available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

## Stahl et al. in view of Shaw

The Official Action sets forth a rejection of Claims 1-3, 18, 24-27, 30-34, 36, 37, 39, and 40 under 35 U.S.C. §103(a) as allegedly being unpatentable over the disclosure contained in U.S. Patent No. 6,557,624 to Stahl et al. in view of U.S. Patent No. 6,269,650 to Shaw. This rejection is respectfully traversed because Stahl et al. considered singly or in combination with Shaw fails to disclose all of the elements of independent Claims 1, 18, 30, and 39.

The Official Action asserts that Stahl et al. discloses all of the elements of Claims 1, 18, 30, and 39 except for the variable capacity compressor. It is respectfully submitted, however, that Stahl et al. also fails to disclose other features contained in Claims 1, 18, 30, and 39 of the claimed invention. For instance, Claims 1, 18, 30, and 39 have been amended to include the feature that the detected heat exchanger unit conditions are communicated to the air conditioning unit controller and that the temperature of the cooling fluid supplied by the air conditioning unit is varied based upon detected levels of heat exchanger unit operation.

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Stahl et al. does not appear to disclose that operations of an air conditioning unit are controlled based upon conditions detected by a heat exchanger unit controller communicated to an air condition unit controller. Instead, Stahl et al. states, rather broadly, that the "[c]oolant temperature and flow rate within the heat exchanger 110 may be controlled manually or automatically, as is understood in the art." (Column 3, lines 52-54). Stahl et al. also states that "[t]he coolant is maintained at the desired temperature and flow rate, under manual or automatic control, as described." (Column 5, lines 44-46). However, Stahl et al. does not disclose any particular control schemes based upon which the coolant temperature is controlled.

Thus, Stahl et al. fails to disclose that the coolant temperature is varied according to detected operating levels of a heat exchanger unit. In addition, Stahl et al. also fails to disclose that an air conditioning unit is operated in manners to enable such coolant temperature variations based upon the heat exchanger unit operation levels. Accordingly, Stahl et al. fails to disclose elements other than those stated in the Official Action.

The Official Action relies upon the disclosure contained in Shaw in an attempt to make up for the lack of disclosure in Stahl et al. regarding the use of a variable capacity compressor. Although Applicants do not agree that such a combination would not have been obvious to one of ordinary skill in the art, the Applicants defer such arguments for a future communication.

The Official Action does not rely upon Shaw for the lack of disclosure in Stahl et al. regarding varying the cooling fluid temperature based upon detected operating levels of a heat exchanger unit. In addition, Shaw does not disclose operating a variable capacity compressor based upon detected operating levels of a heat exchanger unit. In fact, Shaw does not disclose a heat exchanger unit as defined in Claims 1, 18, 30, and 39 of the present invention. Therefore, even assuming that the combination of Stahl et al. and Shaw proposed

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in the Official Action were proper, such a combination would still fail to yield all of the

elements contained in Claims 1, 18, 30, and 39 of the present invention.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claims 1, 18, 30, and 39 of the present invention as allegedly being unpatentable over the disclosures contained in Stahl et al. and Shaw. Claims 2, 3, 24, 25, 27, 31, 33, 34, 37, and 40 are also allowable over the disclosures contained in Stahl et al. and Shaw considered singly or in combination at least by virtue of their respective dependencies on allowable Claims 1, 18, 30, and 39. In addition, these claims are allowable because they contain additional features that are not disclosed in either Stahl et al. or Shaw.

For instance, Stahl et al. and Shaw fail to disclose that the capacity of the variable capacity compressor is varied in response to the operating level of the heat exchanger unit as set forth in Claims 2, 3, and 40. In addition, Stahl et al. and Shaw fail to disclose that the heat exchanger unit is configured to communicate at least one of temperature measurements and heat exchanger unit operations as set forth in Claim 27.

## Stahl et al. in view of Shaw and Nakanishi

The Official Action sets forth a rejection of Claims 5, 9-11, 19, 33, 35, and 38 under 35 U.S.C. §103(a) as allegedly being unpatentable over the disclosure contained in Stahl et al. in view of Shaw and further in view of U.S. Patent No. 6,283,380 to Nakanishi et al. This rejection is respectfully traversed because Stahl et al. considered singly or in combination with Shaw and Nakanishi fails to disclose all of the elements of independent Claims 1, 18, 30, and 39, upon which Claims 5, 9-11, 19, 33, 35, and 38 depend.

As discussed hereinabove, the independent Claims 1, 18, 30, and 39 include features that are not disclosed in Stahl et al. In addition, the Official Action does not rely upon the disclosure contained in either Shaw or Nakanishi et al. to make up for these deficiencies in

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Stahl et al. Instead, the Official Action relies upon the Nakanishi et al. disclosure in an

attempt to reject Claims 5, 9-11, 19, 33, 35, and 38. Moreover, Nakanishi et al. does not

appear to disclose the elements missing in Stahl et al. and Shaw.

At least by virtue of Nakanishi et al.'s failure to disclose the elements missing in Stahl

et al. and Shaw, the proposed modification of Stahl et al. and Shaw with the Nakanishi et al.

disclosure would still fail to yield all of the elements of the present invention as set forth in

Claims 5, 9-11, 19, 33, 35, and 38. Therefore, even assuming for the sake of argument that

the proposed modification of Stahl et al. as set forth in the Official Action were proper, the

proposed modification would still not render obvious Claims 5, 9-11, 19, 33, 35, and 38 of

the present invention. Accordingly, the Examiner is respectfully requested to withdraw the

rejection of Claims 5, 9-11, 19, 33, 35, and 38.

Newly Added Claims

Claims 41 and 42 have been added to further define the invention. In addition,

Claims 41 and 42 are allowable over the prior art of record for at least the reasons set forth

hereinabove.

**Conclusion** 

In light of the foregoing, withdrawal of the rejections of record and allowance of this

application are earnestly solicited.

Should the Examiner believe that a telephone conference with the undersigned would

assist in resolving any issues pertaining to the allowability of the above-identified

application, please contact the undersigned at the telephone number listed below. Please

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grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

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Dated: August 4, 2004

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# In The U.S. Patent and Trademark Office

# In Re the Application of:

**Inventor(s):** Chandrakant D. Patel et al.

Confirmation No.: 8978

Serial No.:

10/697,972

Examiner: Marc E. Norman

Filed:

October 31, 2003

**Group Art Unit:** 

3744

Title:

**COOLING SYSTEM** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## CERTIFICATE OF HAND-DELIVERY WITH THE USPTO

I hereby certify that this correspondence is being deposited with the United States Patent and Trademark Office. This correspondence contains the following document(s):

1 sheet of Transmittal Letter for Response/Amendment (2 copies).
15 sheets of Amendment Under 37 C.F.R. § 1.111.

Respectfully submitted,

MANNAVA & KANG, P.C.

On August 4, 2004

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